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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,626	01/26/2004	Shigehiro Asano	SUZU1220	9078

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EXAMINER

CERULLO, JEREMY S

ART UNIT PAPER NUMBER

2112

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/764,626	Applicant(s) ASANO ET AL.	
	Examiner Jeremy S. Cerullo	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,11-14,20,21,24-27,32,33,36 and 37 is/are rejected.
- 7) ☒ Claim(s) 3-6,9,10,15-19,22,23,28-31,34 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040126</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-37 are pending in the following action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 8, 11-14, 21, and 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,623,372 ("Popat").
4. As for Claim 1, Popat discloses a method for controlling access by a plurality of agents to a resource comprising identifying a priority associated with each agent and enabling each agent to access a resource according to the agent's priority. Please refer to Column 2, Line 63 – Column 3, Line 17 of the reference.
5. As for Claim 2, Popat discloses the additional limitations that the resource comprises a bus (Figure 2, Item 22) interconnecting the agents (Figure 2, Items 20). Popat also discloses that the agents can be processors in a multi-processor system (Column 2, Lines 11-21). Popat also discloses that enabling the agents to access the resource comprises defining a set of time slots and assigning the time slots based on the priority of the agents (Column 3, Lines 3-17).

6. As for Claim 8, Popat discloses that his method comprises modifying the priority of the agents (Column 3, Lines 3-17).

7. As for Claim 11, Popat discloses the additional limitations that the resource comprises a bus (Figure 2, Item 22) interconnecting the agents (Figure 2, Items 20). Popat also discloses that the agents can be processors in a multi-processor system (Column 2, Lines 11-21).

8. As for Claim 12 Popat also discloses that enabling the agents to access the resource comprises defining a set of time slots and assigning the time slots based on the priority of the agents (Column 3, Lines 3-17).

9. As for Claim 13, Popat discloses a system comprising logic for controlling access by a plurality of agents to a resource comprising identifying a priority associated with each agent and enabling each agent to access a resource according to the agent's priority. Please refer to Column 2, Line 63 – Column 3, Line 17 of the reference.

10. As for Claim 14, Popat discloses the additional limitations that the resource comprises a bus (Figure 2, Item 22) interconnecting the agents (Figure 2, Items 20). Popat also discloses that the agents can be processors in a multi-processor system (Column 2, Lines 11-21). Popat also discloses that enabling the agents to access the resource comprises defining a set of time slots and assigning the time slots based on the priority of the agents (Column 3, Lines 3-17).

11. As for Claim 21, Popat discloses that his logic comprises modifying the priority of the agents (Column 3, Lines 3-17).

12. As for Claim 24, Popat discloses the additional limitations that the resource comprises a bus (Figure 2, Item 22) interconnecting the agents (Figure 2, Items 20). Popat also discloses that the agents can be processors in a multi-processor system (Column 2, Lines 11-21).

13. As for Claim 25 Popat also discloses that enabling the agents to access the resource comprises defining a set of time slots and assigning the time slots based on the priority of the agents (Column 3, Lines 3-17).

14. Claims 1, 7, 13, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,092,137 ("Huang" et al.).

15. As for Claim 1, Huang discloses a method for arbitrating access to a shared resource (data bus) and enabling each agent access to the resource based on the priority associated with the agent. Please refer to the Abstract of the reference.

16. As for Claim 7, Huang also discloses that the priority associated with the agent is initially determined based on a bandwidth requirement of the agent. Please refer to the Abstract of the reference.

17. As for Claim 13, Huang discloses a system comprising logic for arbitrating access to a shared resource (data bus) and enabling each agent access to the resource based on the priority associated with the agent. Please refer to the Abstract of the reference.

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18. As for Claim 20, Huang also discloses that the priority associated with the agent is initially determined based on a bandwidth requirement of the agent. Please refer to the Abstract of the reference.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

21. Claims 26- 27, 33, and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,623,372 ("Popat").

22. As for Claim 26, Popat teaches a method for controlling access by a plurality of agents to a resource comprising identifying a priority associated with each agent and

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enabling each agent to access a resource according to the agent's priority. Please refer to Column 2, Line 63 – Column 3, Line 17 of the reference. However, Popat does not explicitly teach that the method is performed based on a set of instructions stored on a computer readable medium. The Examiner takes OFFICIAL NOTICE that it is obvious to have a set of instructions for a computer to be able to perform a function. It would have been obvious to one of ordinary skill in the art at the time of the invention to have had a set of instructions containing the method of Popat on a computer-readable medium so that the computer could carry out the method.

23. As for Claim 27, Popat teaches the additional limitations that the resource comprises a bus (Figure 2, Item 22) interconnecting the agents (Figure 2, Items 20). Popat also teaches that the agents can be processors in a multi-processor system (Column 2, Lines 11-21). Popat also teaches that enabling the agents to access the resource comprises defining a set of time slots and assigning the time slots based on the priority of the agents (Column 3, Lines 3-17).

24. As for Claim 33, Popat teaches that his method comprises modifying the priority of the agents (Column 3, Lines 3-17).

25. As for Claim 36, Popat teaches the additional limitations that the resource comprises a bus (Figure 2, Item 22) interconnecting the agents (Figure 2, Items 20). Popat also teaches that the agents can be processors in a multi-processor system (Column 2, Lines 11-21).

26. As for Claim 37 Popat also teaches that enabling the agents to access the resource comprises defining a set of time slots and assigning the time slots based on the priority of the agents (Column 3, Lines 3-17).

27. Claims 26 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,092,137 ("Huang" et al.).

28. As for Claim 26, Huang teaches a method for arbitrating access to a shared resource (data bus) and enabling each agent access to the resource based on the priority associated with the agent. Please refer to the Abstract of the reference. However, Huang does not explicitly teach that the method is performed based on a set of instructions stored on a computer readable medium. The Examiner takes OFFICIAL NOTICE that it is obvious to have a set of instructions for a computer to be able to perform a function. It would have been obvious to one of ordinary skill in the art at the time of the invention to have had a set of instructions containing the method of Huang on a computer-readable medium so that the computer could carry out the method.

29. As for Claim 32, Huang also teaches that the priority associated with the agent is initially determined based on a bandwidth requirement of the agent. Please refer to the Abstract of the reference.

Allowable Subject Matter

30. Claims 3-6, 9-10, 15-19, 22-23, 28-31, and 34-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

31. The following is a statement of reasons for the indication of allowable subject matter:

32. Claim 3 is considered to contain allowable subject matter particularly due to the limitations that after a comparison between the actual number of access and the expected number of accesses of an agent, the priority of the agent is adjusted, increasing priority if there were less than expected, and decreasing priority if there were more than expected. This combination of limitations is not anticipated nor rendered obvious by the prior art of record.

33. Claims 4-5 are considered to contain allowable subject matter based on their dependence on Claim 3.

34. Claim 6 is considered to contain allowable subject matter particularly due to the limitations that a decrementing counter based on access to a resource both within the resource itself as well as in the requesting agents. This limitation in combination with the rest of the limitations in Claim 6 and its parent claim are not anticipated nor rendered obvious by the prior art of record.

35. Claims 9-10 contain similar subject matter to Claim 3 and as such are considered to contain allowable subject matter.

36. Claim 15 is considered to contain allowable subject matter particularly due to the limitations that after a comparison between the actual number of access and the expected number of accesses of an agent, the priority of the agent is adjusted, increasing priority if there were less than expected, and decreasing priority if there were more than expected. This combination of limitations is not anticipated nor rendered obvious by the prior art of record.

37. Claims 16-17 are considered to contain allowable subject matter based on their dependence on Claim 15.

38. Claim 18 is considered to contain allowable subject matter particularly due to the limitations that a decrementing counter based on access to a resource both within the resource itself as well as in the requesting agents. This limitation in combination with the rest of the limitations in Claim 16 and its parent claim are not anticipated nor rendered obvious by the prior art of record.

39. Claim 19 is considered to contain allowable subject matter based on its dependence on Claim 18.

40. Claims 22-23 contain similar subject matter to Claim 15 and as such are considered to contain allowable subject matter.

41. Claim 28 is considered to contain allowable subject matter particularly due to the limitations that after a comparison between the actual number of access and the expected number of accesses of an agent, the priority of the agent is adjusted, increasing priority if there were less than expected, and decreasing priority if there were

more than expected. This combination of limitations is not anticipated nor rendered obvious by the prior art of record.

42. Claims 29-30 are considered to contain allowable subject matter based on their dependence on Claim 28.

43. Claim 31 is considered to contain allowable subject matter particularly due to the limitations that a decrementing counter based on access to a resource both within the resource itself as well as in the requesting agents. This limitation in combination with the rest of the limitations in Claim 6 and its parent claim are not anticipated nor rendered obvious by the prior art of record.

44. Claims 34-35 contain similar subject matter to Claim 28 and as such are considered to contain allowable subject matter.

Conclusion

45. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,430,848 ("Waggener"), U.S. Patent No. 5,596,576 ("Milito"), and U.S. Patent No. 5,996,037 ("Emnett").

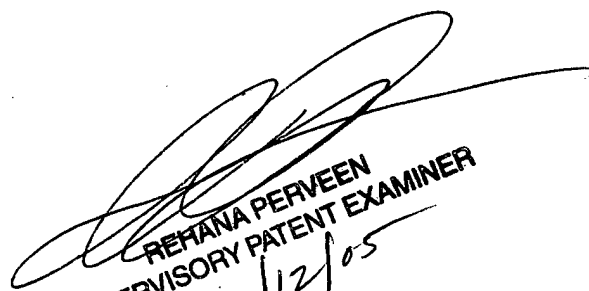
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy S. Cerullo whose telephone number is (571) 272-3634. The examiner can normally be reached on Monday - Thursday, 8:00-4:00; Alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571) 272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JSC


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12/12/05